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ABSTRACT

In direct instruction, the teacher, in a face-to-face, reasonably formal manner, tells, shows, models, demonstrates, and teaches the skill to be learned. Therefore, it is the teacher behavior aspect of classroom instruction that underpins the instructional strategy for teaching main ideas. Much has been learned about teacher behaviors that discriminate successful teachers from less successful teachers. Most of the teacher behaviors described in teacher effectiveness research cluster under the rubric "direct instruction." In a global sense, when direct instruction occurs, enough time is allocated to reading instruction, teachers accept responsibility for student achievement, and they expect that their students will learn. One direct instruction strategy for teaching students various reading comprehension skills is a five-step approach documented by the work and research of J. F. Baumann. The five steps consist of introduction, example, direct instruction, teacher directed application, and independent practice. That is, the teacher tells the students what the lesson will be about; the teacher provides an example; the teacher actually teaches the lesson; and then the teacher gradually releases responsibility for learning to the students through guided application exercises and by providing independent practice. (HOD)

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The Systematic, Intensive Instruction of Reading Comprehension Skills

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Paper presented as part of the "Varying Conceptions of 'Direct Instruction': Implications for Research and Teaching" symposium at the 34th Annual Meeting of the National Reading Conference, St. Petersburg, Florida, November, 1984.

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The Systematic, Intensive Instruction of Reading Comprehension Skills[1]

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> Across a large number of studies, investigators have found that (1) students who receive much of their instruction from the teacher do better than those expected to learn on their own or from each other and (2) students learn to read most efficiently when teachers use systematic instruction, monitor student responses, and give students feedback about their performance.
>
> (Rosenshine & Stevens, 1984, p. 746)

Millions of federal and private dollars and years of effort by educational researchers have resulted in research findings that demonstrate the seemingly simple-minded notion that students learn what they are taught. That is, what teachers directly teach to students, students learn; what students are not taught, they do not learn. This is true for teaching students science, mathematics, language, spelling, and a variety of reading abilities. You might ask yourself why so much time, money, and effort have been expended in proving the obvious, the common sense. Indeed, that is a reasonable question, but unfortunately, observations of teachers in classrooms (e.g., Durkin, 1978-79) indicate that much of what occurs in schools is not directly instructional; that is, oftentimes, students are not taught directly. Instead, students are engaged in extended assessment and practice activities. As Berliner (1981) stated, "The research community has validated some commonsense notions about education [i.e., students learn what they are taught]. But common sense is not common practice, as a visit to the schools will reveal" (p. 224).

The purpose of this paper is to present a direct instruction strategy for teaching students various comprehension skills. The strategy is based upon what is known about effective classroom instruction. After defining direct instruction, research that discriminates effective teachers from less effective teachers is presented. Then the five-step, direct instruction strategy, which is based upon this teacher effectiveness research, is presented along with validating research. The paper concludes with suggestions about how the strategy might be used or adapted.

Direct Instruction in Reading: What Is It?

The term direct instruction has several definitions and interpretations. Direct instruction was first popularized by way of the University of Oregon Direct Instruction Model as an effective way to teach disadvantaged children

[1] Portions of this paper are taken or adapted from: Baumann, J. F., (1984), Implications for reading instruction from the research on teacher and school effectiveness, Journal of Reading, 28, 109-115; and Baumann, J. F. (in press), The direct instruction of main idea comprehension ability, in J. F. Baumann (Ed.), Importance in prose: Research and practice, Newark, DE: International Reading Association.

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(Becker, 1977; Becker & Carnine, 1980). This original direct instruction model "emphasizes small-group, face-to-face instruction by a teacher using carefully sequenced, daily lessons in reading, arithmetic, and language" (Becker, 1977, p. 428). This direct instruction approach was subsequently marketed by Science Research Associates as the familiar DISTAR programs (Engelmann & Bruner, 1969). What is most distinctive about the original direct instruction model is the highly structured, scripted lessons from which the teacher must not deviate.

> The scripts permit the selection and testing of sequences of examples that produce efficient learning if followed. Most teachers simply do not have time to find appropriate words and examples or to sequence skill hierarchies in the most efficient possible manner. When teachers phrase their own questions, they may choose terms unknown to lower-performing children or may include unnecessary verbiage. In choosing examples, moreover, they may teach incorrect rules. (Becker, 1977, p. 430)

In this conception of direct instruction, the teacher's role is rather limited. Altering the scripted lessons or any other modifications of the direct instruction methods and materials are not allowed. In effect, the teacher simply delivers the lesson and engages in very little, if any, instructional decision-making.

Other researchers and theorists, however, began to use the term direct instruction in a somewhat different manner, emphasizing the child and teacher more, rather than the design of instruction or the method of delivery, as was the case with the University of Oregon model. Rosenshine (1979) typified direct instruction in a manner similar to that of Becker (1977) and Becker and Carnine (1980), although he deemphasized the regimented, scripted lessons and looked more toward teacher behaviors associated with student achievement. Berliner (1981) defined direct instruction as consisting of a conflux of conditions and teacher behaviors that have been associated with effective classroom instruction, such as content coverage, opportunity to learn, academic engaged time, allocated time, success rate, and the like. Similarly, Duffy and Roehler (1982) placed the emphasis on teacher variables, not task variables: "Direct instruction means an academic focus, precise sequencing of content, high pupil engagement, careful teacher monitoring and specific corrective feedback to students" (p. 35). Baumann (1983) reinforced the notion that at the real heart of direct instruction lies the teacher:

> In direct instruction, the teacher, in a face-to-face, reasonably formal manner, tells, shows, models, demonstrates, teaches the skill to be learned. The key word here is teacher, for it is the teacher who is in command of the learning situation and leads the lesson, as opposed to having instruction "directed" by a worksheet, kit, learning center, or workbook. (p. 287)

Therefore, it is the teacher behavior aspect of classroom instruction that underpins the instructional strategy for teaching main ideas that is presented in this paper. In the following section, the reserach findings on teacher effectiveness (i.e., teacher behaviors) that support this direct instruction strategy are discussed.

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Teacher Effectiveness and Direct Instruction

Much has been learned about teacher behaviors that discriminate successful teachers from less successful teachers. Many of the teacher effect studies have been correlational (e.g., Fisher, Filby, Marliave, Cahen, Dishaw, Moore, & Berliner, 1978) in which certain teacher behaviors and conditions of the instructional environment have been linked to high student achievement. Other studies have been experimental (e.g., Anderson, Evertson, & Brophy, 1979) in which students of teachers trained to adopt effective teacher behaviors (as identified by correlational studies) have made gains greater than students of teachers not so trained. A comprehensive review of this large body of teacher effectiveness research is beyond the scope of this paper; interested readers are referred to one of several excellent reviews of this literature (Baumann, 1984; Berliner, 1981; Brophy & Good, in press; Duffy, 1981, 1982; Good, 1979, 1983; Rosenshine, 1976; Rosenshine & Stevens, 1984). What follows, however, is a selective review of aspects of teacher effectiveness that are germane to the subsequent discussion of the direct instruction model for teaching main idea comprehension.

Underlying Assumptions

Effective teachers consistently make two assumptions about teaching and learning. First, it is assumed that the school (faculty and administrators) is primarily responsible for student achievement (Brophy & Evertson, 1974, 1976; Hoffman & Rutherford, 1982; Samuels, 1981; Venezky & Winfield, 1979). In other words, teachers and principals do not engage in academic "buck-passing." Rather, they accept the social, economic, and political realities of their situation and work within the constraints present. Therefore, poverty, limited resources, family difficulties, etc. are not used as excuses for failure to learn. Second, effective teachers expect that their students will learn (Brookover & Lezotte, 1979; Brophy & Evertson, 1974, 1976; McDonald & Elias, 1976; Rutter, Maughan, Martimore, Ouston, & Smith, 1979). As Duffy (1982) stated, "When teachers believe that students can learn, they do learn" (p. 365). In effect, these two assumptions reflect teacher confidence--confidence in their ability to teach and in students' ability to learn (Brophy, 1979).

Goals and Objectives

When teachers have clearly-formulated instructional objectives, and when they are able to effectively communicate them to children, learning is enhanced (Anderson et al., 1979; Emmer, Evertson, & Anderson, 1980; Tikunoff, Berliner & Rist, 1975). In turn, effective instruction is typified by children who also know what they are about to learn and why it is important; there is little or no confusion on the part of teachers and students in effective classrooms about what the academic goals are.

Allocated Time

In effective reading programs, enough time is allocated for instruction; that is, there is a direct relationship between the length of the reading period and reading achievement (Fisher et al., 1978; Berliner, 1981). Therefore, it would be safe to predict that if Teacher A had a 40-minute reading period daily and Teacher B had a 75-minute period, Teacher B's students would outperform those of Teacher A. Obviously, there are other factors that affect reading achievement beyond simple time allocation (see the following items), but by setting aside a reasonable amount of time for reading instruction, students are afforded a sufficient opportunity to learn.

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Academic Engaged Time

A factor with a stronger relationship to student achievement than time allocation alone is academic engaged time (Berliner, 1981; Fisher et al., 1978; Rosenshine & Berliner, 1978). Academic engaged time is the amount of allocated time that students are attending to (i.e., engaged in) reading instruction, or more simply stated, "time on task." When students are academically engaged, they pay attention to and participate in the instructional task at hand (e.g., skill instruction by the teacher, oral or silent reading, doing a workbook page, working in a reading kit, reading independently), as opposed to nonacademic engagement which would be transition times, talking, disciplining, and the like.

Academic Emphasis

Teachers who ran their classrooms in a task-oriented or businesslike manner were more effective than teachers who were less formal and student-oriented (Solomon & Kendall, 1979; Stallings, Cory, Fairweather, & Needles, 1977; Stallings & Kaskowitz, 1974; Stallings, Needles, & Stayrook, 1979). An environment with an academic emphasis was typified by teachers who lead lessons themselves (as opposed to self-teaching), used time efficiently, did not digress from the lesson at hand, held students accountable for classroom work and homework, had instructional materials ready, provided substantive feedback to students about their performance, and encouraged students to employ good work habits. Conversely, in classes with less of an academic emphasis, teachers allowed much more unstructured group sharing time and employed many activities that involved arts, crafts, games, puzzles, and toys.

Teacher-Directed Instruction

Teachers with the highest achievement gains are those who select and direct classroom activities themselves (Soar, 1973; Stallings et al., 1977; Stallings & Kaskowitz, 1974; Solomon & Kendall, 1979). Teachers who placed the student as the center of attention, organized learning around student-generated problems, and joined in and participated in student activities were less effective. In addition, student choice of activities has been negatively related to achievement. As Rosenshine and Stevens (1984) note:

> Classrooms in which students chose their own activities, followed their own interests, were responsible for class planning, and were not teacher dependent were also the classrooms which were characterized by rowdiness, shouting, noise, and disorderliness. In addition, these factors of permissiveness, spontaneity, and lack of control were negatively related, not only to achievement gain, but also to growth in creativity, inquiry, writing ability, and self-esteem for the students in those classrooms. (pp. 746-747)

High Success Rates

Effective teachers are those who enable their students to be regularly successful (Anderson et al., 1979; Brophy & Evertson, 1976; Fisher et al., 1978). Berliner (1981) defines high success as "the student understands the task and makes only occasional careless errors" (p. 209). For example, high success would mean that students respond to most questions correctly, read aloud with minimal miscues, and get a high proportion of items correct on written assignments. In other words, the psychologically-intuitive notion

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that "success breeds success" has empirical support. The importance of high success rates, however, does not mean that students should not be challenged or that students do not learn from errors ("Common sense suggests that too high a rate of 'high success' work would be deleterious,' Berliner, 1981, p. 211); instead, it merely means that regular failure (i.e., low success rates) discourages or interferes with learning.

Effective Managers

Not surprisingly, teachers who are effective managers are effective in teaching children reading skills (Anderson et al., 1979; Brophy & Good, in press; Emmer et al., 1980; Duffy, 1981, 1982). Management behaviors linked to effective reading instruction include thorough, advanced preparation by the teacher, a brisk pace of instruction, minimal transition time, the installation of unambiguous rules and procedures, and an ability to prevent misbehavior (Anderson, Evertson, & Brophy, 1982).

Teacher Monitoring

Teacher monitoring also has been shown to be directly related to student achievement (Anderson et al., 1979; Brophy & Good, in press; Emmer et al., 1980). Monitoring involves teachers' ability to check students' understanding, to provide corrective feedback, to reteach when necessary, and to insure the completion of assigned work. Monitoring is obviously closely tied to engagement and management, for these are the teachers who create more opportunities for students to learn by organizing themselves and their classrooms to enhance efficiency and minimize wasted time (Anderson et al., 1982).

Large or Small Group Instruction

Although one-to-one instruction is the most effective organizational pattern (Smith & Glass, 1980), given the impracticality of much one-to-one instruction in classrooms of 20-30 students, the research indicates that traditional, large or small group instruction is more effective than highly "individualized" instruction in which students are expected to learn by themselves (Fisher et al., 1978; Kean, Summers, Ravietz, & Farber, 1979; Stallings & Kaskowitz, 1974). When reviewing this literature, Rosenshine and Stevens (1984) noted, "When students worked in groups under adult supervision, correlations with achievement were positive and often significant, but when small groups met without an adult, correlations between this pattern and achievement were negative and often significant" (p. 748). Although the research provides no definitive answer to the question of the relative merits of large versus small group instruction (Brophy & Good, in press), small group instruction is probably necessary for teaching reading, especially in highly heterogeneous classes (Anderson et al., 1982; Brophy & Good, in press). In other words, when students work in homogeneous groups (usually achievement level groups), achievement is greater than when students are working independently on learning packets or centers (Brophy & Good, in press). This does not mean that individual differences should not be taken into consideration. Whole class or large group instruction in which each student, regardless of instructional level, must use the same materials is unwise. But when teachers group on the basis of achievement level and assign appropriate instructional materials, students increase their reading ability (Anderson et al., 1982).

Classroom Atmosphere

Given all the emphasis on academic focus, teacher-directed instruction, effective management, strict monitoring, and the like, one might be left with

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the impression that effective teachers run classrooms like a Marine drill sergeant, in which the climate is authoritarian, discipline is harsh, rules are unbending, and punishment is administered arbitrarily. Quite to the contrary, effective classrooms have been found to be warm, cooperative, "convivial" environments (Anderson et al., 1979; Berliner & Rosenshine, 1977; Brophy, & Evertson, 1974; Emmer et al., 1980). Teachers were in charge in effective classrooms, no doubt, and there was little tolerance for nonacademic activities, but these teachers also had a sense of humor, administered praise, and communicated to children a sincere feeling of caring. In effect, these classrooms were happy places where students felt secure and comfortable.

A Direct Instruction Strategy for Teaching Reading Comprehension Skills

Most of the teacher behaviors just described have been clustered under the rubric direct instruction (Baumann, 1983; Berliner, 1981; Berliner & Rosenshine, 1977; Duffy, 1981, 1982; Rosenshine, 1976). In this global sense, when direct instruction occurs, enough time is allocated to reading instruction, teachers accept responsibility for student achievement, and they expect that their students will learn. Teachers understand the objectives for their lessons and are able to communicate them effectively to their students. The academic atmosphere is business-like and serious but, at the same time, is nonthreatening, warm, and convivial. The teacher selects the instructional activities and directs the lessons; instruction is not administered by a workbook, learning center, textbook, or another student. Instruction usually occurs in small or large groups, students succeed more often than not, and students are on task a high proportion of the time. The teacher is well prepared, is able to prevent misbehavior, checks students' understanding, provides corrective feedback, and reteaches when necessary. But most important, the teacher is in command of the learning situation by showing, telling, demonstrating, modeling, teaching the skill to be learned.

There is ample evidence to support the effectiveness of a direct instruction approach to teaching reading comprehension skills. For example, Hansen (1981) and Hansen and Pearson (1983) were effective in teaching children to increase markedly their inferential comprehension skill; Raphael and Pearson (1982) and Raphael and McKinney (1983) reported positive effects of metacognitive training on children's question/answering strategies; Reis and Spekman (1983) were successful in training upper-grade poor comprehenders in the use of comprehension monitoring strategies; Fitzgerald and Spiegel (1983) enhanced children's comprehension of stories by direct instruction on narrative structure; Tharp (1982) reported consistently higher levels of reading comprehension achievement in a longitudinal study involving educationally high-risk, Polynesian-Hawaiian primary-grade children who received massed, active comprehension instruction when compared to children who experienced a more traditional decoding-focused program; and Patching, Kameenui, Carnine, Gersten, and Colvin (1983) trained fifth-grade students in critical reading comprehension skills (faulty generalization, false causality, and invalid testimonial) and found that students who received a systematic, direct instruction approach outperformed comparable students who received a workbook-with-corrective-feedback approach and controls.

The five-step direct instruction strategy that follows is taken from Baumann (1983). The effectiveness of this approach for teaching reading

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comprehension skills has been documented in two studies. In one study, Baumann (in press) evaluated the effectiveness of the strategy for teaching students to comprehend main ideas. Sixth grade students were randomly assigned to one of three treatments: a direct instruction group which employed the five-step procedure, a basal group which was administered main idea lessons from basal readers, or a control group which received vocabulary development instruction. Results revealed that the direct instruction group significantly outperformed both the basal group and controls on a series of measures that assessed varying aspects of main idea comprehension. In a second study, Baumann (1984) found again that the direct instruction strategy was superior to a basal group and a control group in teaching third grade students to comprehend various anaphoric relationships. A description of each of the five steps in this direct instruction comprehension strategy follows.

Introduction

In this step, the students are provided a purpose for the ensuing lesson, and they are told why the acquisition of the skill will help them become better readers. In effect, the introduction is simply a structured overview, so the students have a clear understanding of the content and purpose of the lesson that follows. The introduction is built upon the teacher effectiveness findings related to "underlying assumptions" and "goals and objectives" (see previous review).

Example

The example is an extension of the introduction. In this step, a section of text that contains an example of the skill to be taught is shown to the students. This helps the students understand more fully what they will learn about. The example demonstrates how this relationship or convention exists in written text and how the ability to understand the relationship or convention will help students comprehend better what they read. Like the introduction, the example builds upon what is known about "underlying assumptions," "goals and objectives," and "academic emphasis."

Direct Instruction

In direct instruction, the teacher is actively engaged in showing, telling, modeling, demonstrating the skill to be learned. As in the introduction and example, the teacher is leading the lesson during direct instruction. The students are actively involved by responding to questions and working out the comprehension of text, but the teacher is in charge. That is, the primary responsibility for learning rests with the teacher; shared pupil-teacher responsibility and full pupil responsibility for learning comes in following steps (Pearson & Gallagher, 1983). Heuristics are an important part of direct instruction; they provide students with some structure or method to use when they apply independently the skill in the future. In addition, students are required to compose answers whenever possible in direct instruction (and in following steps), for it is known that when students must generate responses, learning is greater than when they are simply required to recognize or identify answers (Bridge, Belmore, Moskow, Cohen, & Matthews, 1984; Doctrow, Wittrock, & Marks, 1978; Taylor & Berkowitz, 1980). The direct instruction step is founded upon the teacher effectiveness findings related to "academic emphasis," "academic engaged time," "teacher-directed instruction," "high success rates," "effective management," and "small group instruction."

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Teacher Directed Application

In this step, the responsibility for skill acquisition begins to shift to the student (Pearson & Gallagher, 1983). In teacher-directed application, the teacher still initiates the activities, but the students are required to "puzzle out" texts which contain the targeted skill under the supervision of the teacher. In other words, the teacher is present for guidance and feedback, but the students are forced to apply the skill taught previously. This enables the teacher to monitor students' success in skill acquisition so that reteaching can occur if necessary. Research related to "academic emphasis," "teacher-directed instruction," "effective management," and "teacher monitoring" underpin this step.

Independent Practice

In the final step, the transition from full teacher responsibility for learning, to shared pupil/teacher responsibility, to full student responsibility is complete (Pearson & Gallagher, 1983). In independent practice, students are provided exercises that consist of materials not used in instruction or application and which require them to exercise the skill independently. The use of passage-length texts and generative responses are also desirable characteristics of this step. Teacher effectiveness research provides considerable evidence of the need for substantial amounts of independent practice after instruction has occured (e.g., Brophy & Evertson, 1976; Fisher et al., 1978; Stallings et al., 1977; Stallings & Kaskowitz, 1974). In addition, research on "underlying assumptions," "allocated time," "academic engaged time," and "teacher monitoring" relate to this step.

Conclusions

The five-step direct instruction strategy presented in this paper should not be viewed as the only or best way to teach comprehension skills. No single strategy nor technique should be considered definitive; there are no panaceas in reading instruction.

What the strategy does present, however, is one way a teacher can systematically and intensively teach comprehension skills. The power of the approach is that it is based upon what is known empirically about effective classroom instruction. When using the direct instruction strategy to design original lessons or when using it to evaluate and then modify existing lessons, the goal should not be to follow the technique explicitly. There are no scripts for this approach to direct instruction. Rather, the goal should be to design or modify lessons such that the teacher becomes the critical factor in instruction. That is, the teacher tells the students what the lesson will be about; the teacher provides an example; the teacher actually teaches the lesson; then, gradually, the teacher releases responsibility for learning to the students through guided application exercises and then by providing independent practice. In other words, it is the spirit of the direct instruction strategy that is most important, not the explicit nature of the five steps that are recommended.

Finally, the five-step strategy may be generalizable to other reading skills (e.g., decoding or vocabulary skills) or perhaps to content domain instruction (e.g., mathematics, science). Additional research is needed, however, to determine if the strategy generalizes to instruction in these areas.

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